Please expedite
Rena Dye, SPE A.U. 1774

Access DB# 160578

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HELEN PETTIGREW Examiner #: 70058 Date: 7/26/05
Art Unit: 1713 Phone Number 30 2-1108 Serial Number: 10/657,495
Mail Box and Bldg/Room Location: REM-10A29 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf - Ctr
JUL 26 RECD
Pat. & T.M. Office

Title of Invention: SEE ATTACHED

Inventors (please provide full names):

Earliest Priority Filing Date: 9/8/03 *claims 4-9 are pending

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

A polymer/copolymer containing recurring units from polymerizable (ring) or allyl group containing azo dye monomer defined in claim 4 and a (meth)acrylate monomer commoner and further copolymerize with siloxane oligomer (claim 8)
See attached p. 10-13 of each ~~the~~ monomer species disclosed
many thanks!

utility
optical, ocular lens, ophthalmic devices

****

STAFF USE ONLY

Searcher: K. Fuller
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up:
Date Completed: 7/27/05
Searcher Prep & Review Time: 40
Clerical Prep Time:
Online Time: 46

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) 2
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

STIC Search Results Feedback Form

USPTO

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact*:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

STIC Search Report
EIC 1700

STIC Database Tracking Number: 160578

TO:	From:
Helen Pezzuto Location: REM 10A29 Art Unit : 1713 July 27, 2005 Case Serial Number: 10/657495	Kathleen Fuller Location: EIC 1700 REMSEN 4B28 Phone: 571/272-2505 Kathleen.Fuller@uspto.gov

Search Notes

```
=> file reg
FILE 'REGISTRY' ENTERED AT 12:58:53 ON 27 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   26 JUL 2005  HIGHEST RN 857144-48-0
DICTIONARY FILE UPDATES:  26 JUL 2005  HIGHEST RN 857144-48-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 12:58:57 ON 27 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 27 Jul 2005  VOL 143 ISS 5
FILE LAST UPDATED: 26 Jul 2005  (20050726/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
```

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

```
=> d que
L18                 STR

 Cb~N≡N~Cb~G1          Ak~N~G2~C=CH~G3          O~C~O
  1  2  3  4  5        @6  7  8  9  10 11       13 @14 15


                                      31
 N~G2~C=CH~G3                         O          Ak @32   Ak~N
@17 18 19 20 21                       ≀                   33 @34
                                      ≀
                          N~Ak~O~C~G4
                         @23 24 25 26 27

VAR G1=6/17/23
REP G2=(0-10) C
VAR G3=H/AK/14
VAR G4=32/34
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   1
GGCAT   IS UNS  AT   4
GGCAT   IS UNS  AT  32
GGCAT   IS UNS  AT  33
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  28

STEREO ATTRIBUTES: NONE
L20         2630 SEA FILE=REGISTRY SSS FUL L18
L22         1458 SEA FILE=HCAPLUS ABB=ON  L20
L23          514 SEA FILE=HCAPLUS ABB=ON  L22(L)PREP/RL
L24            4 SEA FILE=HCAPLUS ABB=ON  L23 AND (LENS? OR OCULAR? OR OPHTHALM?
                 OR EYE#)
L25           39 SEA FILE=HCAPLUS ABB=ON  L22 AND ?SILOXAN?
L26           25 SEA FILE=HCAPLUS ABB=ON  L25 AND OPTIC?
L27           30 SEA FILE=HCAPLUS ABB=ON  L23 AND PHARMACE?/SC,SX
L28            3 SEA FILE=HCAPLUS ABB=ON  L25 AND L27
L29            1 SEA FILE=HCAPLUS ABB=ON  L26 AND L27
L30            4 SEA FILE=HCAPLUS ABB=ON  L24 OR L28 OR L29
L31            4 SEA FILE=HCAPLUS ABB=ON  L23 AND ?OCULAR?
L32            4 SEA FILE=HCAPLUS ABB=ON  L30 OR L31
L33           11 SEA FILE=HCAPLUS ABB=ON  L22 AND (LENS? OR ?OCULAR? OR
                 OPHTHALM? OR EYE#)
L34           11 SEA FILE=HCAPLUS ABB=ON  (L30 OR L31 OR L32 OR L33)
```

2,630 structures from the query

11 CA references with utility

```
=> d l34 1-11 bib abs ind hitstr

L34  ANSWER 1 OF 11  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:220216  HCAPLUS
DN   142:285299
TI   Process for making silicone intraocular lens with blue
     light absorption properties using reactive dyes for hydrosilation
IN   Lai, Yu-Chin; Ruscio, Dominic V.
PA   USA
SO   U.S. Pat. Appl. Publ., 6 pp.
     CODEN: USXXCO
DT   Patent
```

LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005055091	A1	20050310	US 2003-657781	20030908
	WO 2005025632	A1	20050324	WO 2004-US27006	20040819

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-657781 A 20030908

AB A process for producing silicone **intraocular lenses** (IOLs) capable of absorbing blue light. **Intraocular lenses** so produced block blue light from reaching the retina of an **eye** implanted with the IOL. By blocking blue light from reaching the retina, the IOL thereby prevents potential damage to the retina.

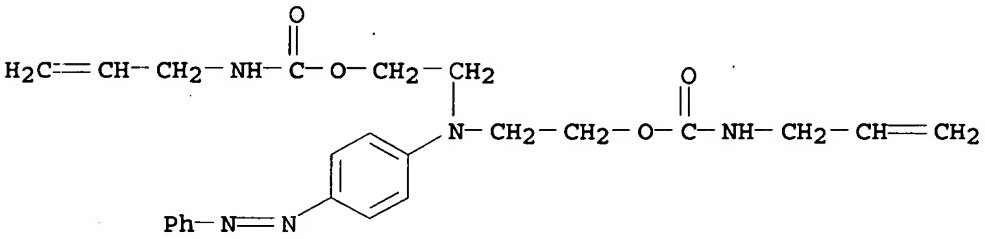
IC ICM A61F002-14
INCL 623005160; 623004100; 623006600; 623920000; 427002240
CC 63-7 (Pharmaceuticals)
ST silicone **intraocular eye lens** blue light absorption reactive dye
IT Light
(blue; process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)
IT Prosthetic materials and Prosthetics
(implants; process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)
IT **Eye**
(**lens**, implants; process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)
IT Coating materials
Coating process
Hydrosilylation
Intraocular lenses
Optical absorption
Reactive dyes
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)
IT Polysiloxanes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)
IT 7440-06-4, Platinum, biological studies 7440-06-4D, Platinum, complexes with divinyltetramethyldisiloxane/cyclovinylmethylsiloxane 30110-75-9D, platinum complexes
RL: CAT (Catalyst use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

IT **847161-51-7 847161-54-0 847161-57-3**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

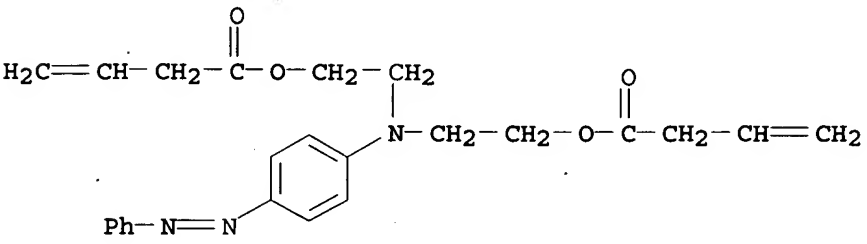
IT 2554-06-5 2627-95-4
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

IT **847161-51-7 847161-54-0 847161-57-3**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

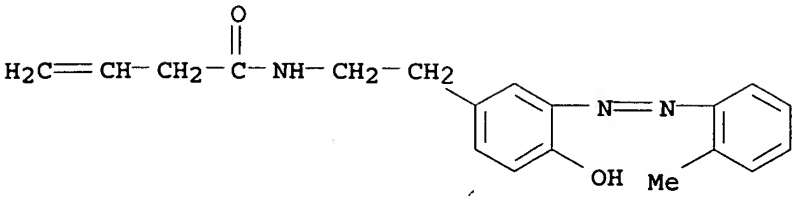
RN 847161-51-7 HCAPLUS
CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-54-0 HCAPLUS
CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-57-3 HCAPLUS
CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)



L34 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:220215 HCAPLUS
DN 142:285298
TI Process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes
IN Lai, Yu-Chin; Ruscio, Dominic V.; Green, George F.
PA USA
SO U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005055090	A1	20050310	US 2003-657356	20030908
WO 2005026787	A1	20050324	WO 2004-US26776	20040819

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-657356 A 20030908

AB A process for producing **intraocular lenses** (IOLs) capable of absorbing blue light and UV light using photo curing. **Intraocular lenses** so produced block blue light and UV light from reaching the retina of an **eye** implanted with the IOL. By blocking blue light and UV light from reaching the retina, the IOL thereby prevents potential damage to the retina.

IC ICM A61F002-14
INCL 623005160; 623006600; 623004100; 623920000
CC 63-7 (**Pharmaceuticals**)
ST **intraocular eye lens** blue light absorption refractive index monomer
IT Light
(blue; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
IT Prosthetic materials and Prosthetics
(implants; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
IT **Eye**

(**lens**, implant; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Crosslinking
(photochem.; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Ketones, uses
Salts, uses
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiators; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Polymerization catalysts
(photopolymn.; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Acrylic polymers, biological studies
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**polysiloxane**-; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Azo dyes
Contact **lenses**
Hydrogels
Intraocular lenses
Optical absorption
Refractive index
UV radiation
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Light sources
(xenon lamp; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Reactive dyes
(yellow; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 2170-60-7 4409-13-6 71819-94-8 96478-09-0, 2-(2'-Hydroxy-5'-methacryoxyethylphenyl)-2H-benzotriazole 96478-15-8, 2-[3'-tert-Butyl-2'-hydroxy-5'-(3''-methacryloyloxypropyl)phenyl]-5-chlorobenzotriazole 122430-79-9, 2-[3'-tert-Butyl-5'-(3''-dimethylvinylsilylpropoxy)-2'-hydroxyphenyl]-5-methoxybenzotriazole 275371-71-6
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(UV absorbent; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 2177-70-0, Phenyl methacrylate 2495-37-6, Benzyl methacrylate 3683-12-3, 2-Phenylethyl methacrylate 3683-14-5, 3-Phenylpropyl methacrylate 14908-64-6 92141-11-2 93858-45-8 133309-57-6 139612-56-9 203578-59-0 246870-69-9 246870-70-2 246870-71-3 247020-20-8 247020-22-0 247020-24-2 247020-26-4 247020-29-7 247020-31-1 247020-33-3 247020-36-6 247020-39-9 847413-34-7 847413-35-8 847413-36-9 847413-37-0 847413-38-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high refractive index monomer; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 7440-63-3, Xenon, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(lamp; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 290-87-9D, Triazine, derivs.
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiators; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 814-68-6, Acryloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 2452-84-8P, Solvent Yellow 58 **847413-39-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

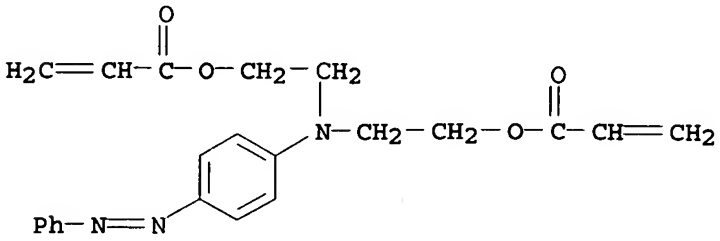
IT 524699-07-8P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT 95-14-7DP, Benzotriazole, methacrylate derivs., polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2495-35-4DP, Benzyl acrylate, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2495-37-6DP, Benzyl methacrylate, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2680-03-7DP, N,N-Dimethylacrylamide, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates **847413-39-2DP**, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 847413-40-5DP, reaction products with hydroxyethyl methacrylate, polymers with (meth)acrylates
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

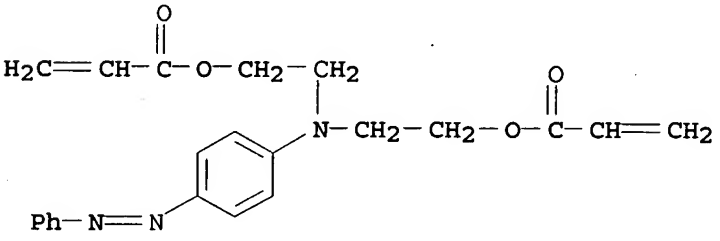
IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT **847413-39-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index

monomers and reactive yellow dyes)
RN 847413-39-2 HCAPLUS
CN 2-Propenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



IT **847413-39-2DP**, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
RN 847413-39-2 HCAPLUS
CN 2-Propenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



L34 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:220187 HCAPLUS
DN 142:298999
TI High refractive index silicone-containing prepolymers with blue light absorption capability
IN Lai, Yu-Chin; Ruscio, Dominic V.
PA USA
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005054802	A1	20050310	US 2003-657355	20030908
	WO 2005026788	A1	20050324	WO 2004-US27065	20040819

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-657355 A 20030908

AB A process for producing silicone-containing prepolymers capable of absorbing blue light for use in the production of relatively high refractive index polymeric compns. is described herein. Polymeric compns. so produced are useful in the production of **ophthalmic** devices such as for example **intraocular lenses** and corneal inlays. Thus, 51.55 g hexamethylcyclotrisiloxane and 25.98 g dichloromethylsilane were reacted in the presence of hexamethylphosphoric triamide to give heptamethylcyclotetrasiloxane, 28.2 g of which was reacted with 32.2 g N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-3-butenamide to give a reactive cyclic dye compound, 3.02 g of the resulting dye compound was mixed with heptamethylphenylcyclotetrasiloxane, dimethylvinylsilyl-terminated dimethylpolysiloxane 73, octamethylcyclotetrasiloxane 4,473.6, 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane 340, and potassium trimethylsilanoate 0.139 g and heated at 150-160° to give a dimethylvinylsilyl-terminated polysiloxane with Mn 88,600, refractive index >1.46, and yellow dye content 0.16%.

IC ICM C08L083-04
ICS C08G077-04

INCL 528015000; 528032000; 528033000; 528037000; 524866000

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 63

ST high refractive index silicone prepolymer blue light absorption; azo dye contg polysiloxane prepolymer prepn

IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic, dye-containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polysiloxanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye-containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Medical goods
(**ophthalmic**; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

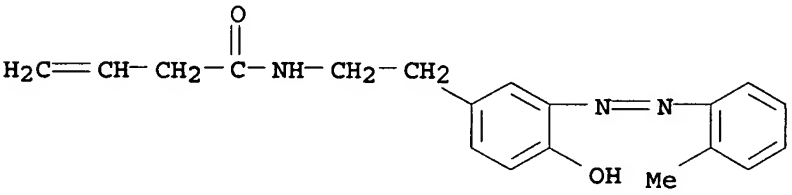
IT Reactive dyes
(polysiloxane containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Acrylic polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysiloxane-, dye-containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysiloxane-; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyurethane-; preparation of high refractive index silicone-containing

prepolymers with blue light absorption capability)
IT **Eye**
Intraocular lenses
(preparation of high refractive index silicone-containing prepolymers with blue
light absorption capability)
IT 15721-05-8P, Heptamethylcyclotetrasiloxane 59942-04-0P, Dimethylvinylsilyl-terminated polydimethylsiloxane 60162-06-3P, 1,3-Divinyltetramethyldisiloxane-octamethylcyclotetrasiloxane copolymer 847593-98-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)
IT 847593-99-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of high refractive index silicone-containing prepolymers with blue
light absorption capability)
IT 75-54-7, Dichloromethylsilane 541-05-9, Hexamethylcyclotrisiloxane **847161-57-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of high refractive index silicone-containing prepolymers with blue
light absorption capability)
IT **847161-57-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of high refractive index silicone-containing prepolymers with blue
light absorption capability)
RN 847161-57-3 HCAPLUS
CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)



L34 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:220184 HCAPLUS
DN 142:285295
TI Novel reactive yellow dyes useful for **ocular** devices
IN Lai, Yu-Chin
PA USA
SO U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005054797	A1	20050310	US 2003-657495	20030908

application

WO 2005026266 A1 20050324 WO 2004-US27008 20040819
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2003-657495 A 20030908
OS MARPAT 142:285295

AB The invention relates to novel azo-based reactive yellow dyes (e.g., N,N-bis(2-allylcarbamatoethyl)-(4'-phenylazo)aniline) and a process for manufacturing and using **ocular** devices having blue light absorption properties. **Intraocular lenses** so produced block blue light from reaching the retina of an **eye** implanted with the IOL. By blocking blue light from reaching the retina, the IOL thereby prevents potential damage to the retina. The **ocular** device is selected from the group consisting of contact **lenses**, keratoprostheses, capsular bag extension rings, corneal inlays, corneal rings and **intraocular lenses.**

IC ICM C08F030-08
INCL 526319000; 526279000
CC 63-7 (**Pharmaceuticals**)
Section cross-reference(s): 37, 41
ST reactive yellow dye **intraocular lense ocular** device

IT Prosthetic materials and Prosthetics
(implants; novel reactive yellow dyes useful for **ocular** devices)

IT Azo dyes
Coating materials
Contact **lenses**
Intraocular lenses
Reactive dyes
(novel reactive yellow dyes useful for **ocular** devices)

IT **Polysiloxanes**, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel reactive yellow dyes useful for **ocular** devices)

IT 2452-84-8P, C.I. Solvent Yellow 58 847356-36-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; novel reactive yellow dyes useful for **ocular** devices)

IT 7440-06-4D, Platinum, **cyclovinylmethylsiloxane** complex
RL: CAT (Catalyst use); USES (Uses)
(novel reactive yellow dyes useful for **ocular** devices)

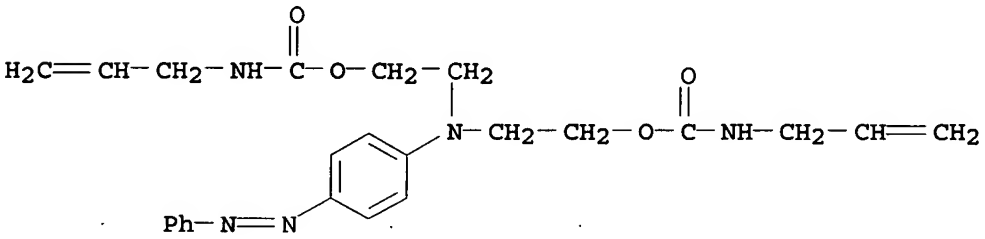
IT 156048-34-9D, Dimethylsilanediol-diphenylsilanediol copolymer, vinyl-terminated
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel reactive yellow dyes useful for **ocular** devices)

IT 51-67-2, p-β-Aminoethylphenol 95-53-4, o-Toluidine, reactions 1470-91-3, Vinylacetyl chloride 1476-23-9, Allyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; novel reactive yellow dyes useful for **ocular** devices)

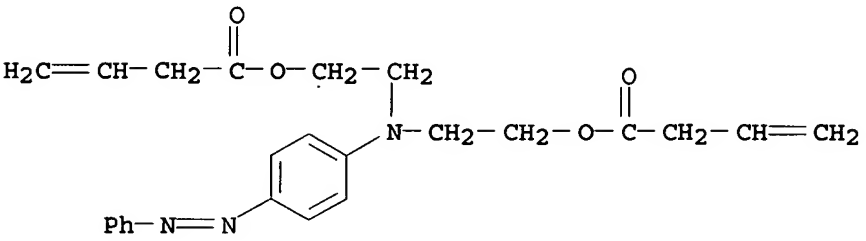
IT **847161-51-7P**, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline **847161-54-0P**, N,N-Bis-(2-vinylacetoxyethyl)-(4'-phenylazo)aniline **847161-57-3P**
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(yellow dyes; novel reactive yellow dyes useful for **ocular** devices)

IT **847161-51-7P**, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline **847161-54-0P**, N,N-Bis-(2-vinylacetoxyethyl)-(4'-phenylazo)aniline **847161-57-3P**
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(yellow dyes; novel reactive yellow dyes useful for **ocular** devices)

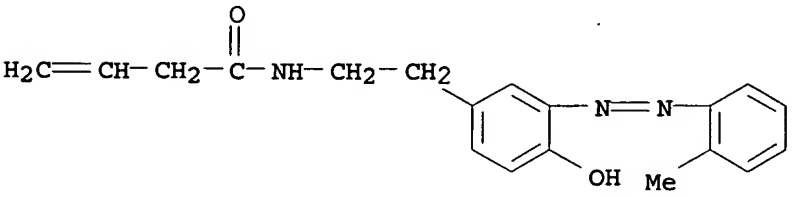
RN 847161-51-7 HCAPLUS
CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-54-0 HCAPLUS
CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-57-3 HCAPLUS
CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)

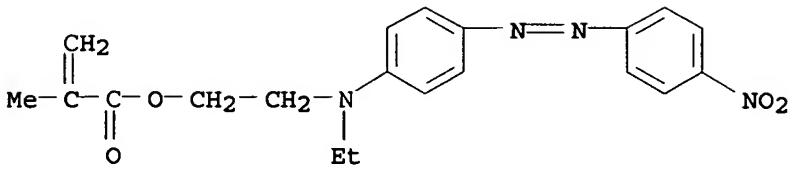


L34 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:693554 HCAPLUS
DN 140:242479
TI Optically Induced Mass Transport Generated in Near-Fields
AU Stiller, B.; Karageorgiev, P.; Buchsteiner, A.; Geue, Th.; Henneberg, O.; Brehmer, L.; Natansohn, A.; Hollricher, O.
CS Institute of Physics, Univ. Potsdam, Potsdam, D-14415, Germany
SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5122(Advanced Organic and Inorganic Optical Materials), 173-178
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB In the last few years a range of techniques for opto-mech. manipulations of organic films and small structures has been developed and significantly improved. Among these techniques a very promising candidate turned out to be the optically induced mass transport. Not only that the phys. mechanisms underlying this phenomenon is not yet been fully understood, but in addition, the lateral dimensions of structures created in that way have been limited by the used light wavelength. In order to gain deeper insight into the phys. fundamentals of this phenomenon and to open possibilities for applications (lithog., data storage, manipulation of mols., ...) it is necessary to create and study reproducible, sharply defined single structures not only in a macroscopic but also in nanometer range. SNOM (Scanning Nearfield Optical Microscopy) seemed to us an intriguing method to approach this goal. We report here novel exptl. results about the generation of ultra-small structures by optically driven mass transport. We have investigated different ways to generate localized mass transport in azobenzene-containing films by using focused light in far and nearfields. Thus, the dimensions of optically created structures range to 5 μm (**lens** focusing) and even down to 100 nm (SNOM nearfield). These expts. offer new expectations to manipulate ultra small objects on surfaces by optical means without mech. touching them.
CC 71-11 (Nuclear Technology)
Section cross-reference(s): 73, 74
ST optical mass transport azobenzene near field; polymer film optical mass transport near field
IT Mass transfer
Microstructure
(optically induced mass transport generated in near-fields)
IT 103-33-3, Azobenzene
RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(optically induced mass transport generated in near-fields)
IT **139096-37-0**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
(optically induced mass transport generated in near-fields)
IT **139096-37-0**
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
(optically induced mass transport generated in near-fields)
RN 139096-37-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 103553-48-6

CMF C20 H22 N4 O4



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:214961 HCAPLUS
DN 138:243355
TI Silicone copolymer reaction products with dyes for **intraocular lenses**
IN Ichinohe, Takashi
PA Canon Star K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003084242	A2	20030319	JP 2001-279077	20010914
	US 2003078359	A1	20030424	US 2002-236584	20020905
	US 6878792	B2	20050412		
	CN 1408709	A	20030409	CN 2002-131696	20020912
	EP 1293541	A2	20030319	EP 2002-256409	20020913
	EP 1293541	A3	20030528		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	US 2005101690	A1	20050512	US 2004-966752	20041014
PRAI	JP 2001-279077	A	20010914		
	US 2002-236584	A3	20020905		

OS MARPAT 138:243355
AB This invention relates to colored soft **intraocular lenses** which show spectral transmission properties similar to human **lenses.** The **lens** materials comprise silicone polymers with side chain hydrosilyl groups reacted with arylazobenzene derivs. Silicone rubber (KE 103) was treated with 4-(4'-allyloxycarbonylphenylazo)-3-methyl-1-phenylpyrazolone and 2-hydroxy-4-methacryloyloxyethoxybenzophenone to give a colored **intraocular** material.
IC ICM G02C007-04
ICS A61L027-00; C08K005-3445; C08L083-05; C08L083-07; C09B029-085; C09B029-50; G02C007-10
CC 63-7 (**Pharmaceuticals**)
ST **polysiloxane** arylazobenzene dye hydrosilylation product **intraocular lens**
IT Human
Intraocular lenses
UV stabilizers
(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)
IT Silicone rubber, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(reaction products, with allyloxyazopyrazolone derivative and methacryloyloxybenzophenone; preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT **Polysiloxanes**, biological studies
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(reaction products, with arylazobenzene derivs.; preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT 501952-94-9P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of colored acrylate polymers)

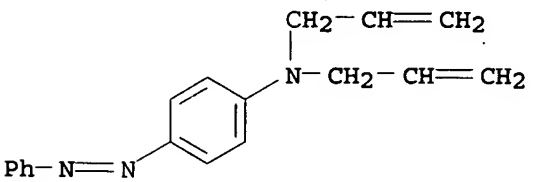
IT 103-33-3, Azobenzene 106-95-6, Allylbromide, reactions 107-18-6, Allyl alcohol, reactions 150-13-0, 4-Aminobenzoic acid 1520-21-4, 4-Aminostyrene 19735-89-8, 3-Methyl-1-phenylpyrazolone
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT 7014-29-1P 17333-88-9P 30926-22-8P 88801-39-2P **93870-83-8P** 118969-55-4P
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT 2035-72-5DP, reaction products with silicone rubber and allyloxycarbonylphenylazophenylpyrazolone 156118-35-3DP, Dimethylsilanediol-methylhydrogensilanediol copolymer, hydrosilylation products with diallyl(phenylazo)aniline and methacryloyloxyethoxybenzophenone
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT **93870-83-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

RN 93870-83-8 HCAPLUS
CN Benzenamine, 4-(phenylazo)-N,N-di-2-propenyl- (9CI) (CA INDEX NAME)



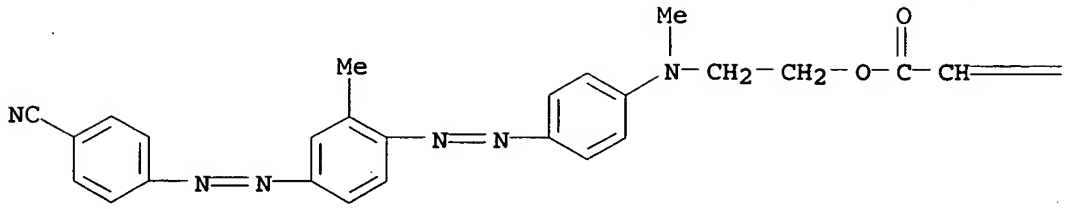
L34 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:302135 HCAPLUS
DN 135:84194
TI Photoaddressable polymers for rewritable optical disk systems
AU Sabi, Yuichi; Yamamoto, Masanobu; Watanabe, Hidetoshi; Bieringer, Thomas;

Haarer, Dietrich; Hagen, Rainer; Kostromine, Serguei G.; Berneth, Horst
CS Giga Byte Laboratory, HNC, Sony Corporation, Tokyo, 141-0001, Japan
SO Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (2001), 40(3B), 1613-1618
CODEN: JAPNDE; ISSN: 0021-4922
PB Japan Society of Applied Physics
DT Journal
LA English
AB The authors studied photoaddressable polymers (PAPs) applicable to optical disk systems. PAPs represent a new class of organic rewritable materials that exhibit a huge signal birefringence (Δn) at the readout wavelength. By optimizing the disk structure and the readout optics, the signal amplitude is proved to be sufficient for the optical disk systems. A low noise profile and sharp recording profile led to a maximum carrier-to-noise ratio (C/N) of 58 dB and a clear eye-pattern. They also showed a potential for multi-level recording, since the recording was dominated by a pure photon mode.
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoaddressable polymer rewritable optical disk; azobenzene contg vinyl polymer erasable optical disk
IT Erasable optical disks
(photoaddressable polymers with azobenzene containing pendant groups for rewritable optical disk systems)
IT Optical recording
(rewritable optical disk systems; photoaddressable polymers with azobenzene containing pendant groups for rewritable optical disk systems)
IT 7631-86-9, Silica, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(application of signal amplitude enhancement with SiO2 or Si3N4 layer in optical recording on photoaddressable polymer with azobenzene containing pendant groups for rewritable optical disk systems)
IT 12033-89-5, Silicon nitride, properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(application of signal amplitude enhancement with SiO2 or Si3N4 layer in optical recording on photoaddressable polymer with azobenzene containing pendant groups for rewritable optical disk systems)
IT 7440-22-4, Silver, uses
RL: DEV (Device component use); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for rewritable optical disk systems)
IT **346725-18-6**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for rewritable optical disk systems)
IT **346725-18-6**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for rewritable optical disk systems)
RN 346725-18-6 HCAPLUS
CN 2-Propenoic acid, 2-[[4-[[4-[(4-cyanophenyl)azo]-2-methylphenyl]azo]phenyl]methylamino]ethyl ester, polymer with 2-[4-[[[4-[(4-cyanophenyl)azo]phenyl]amino]carbonyl]phenoxy]ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 346725-17-5
CMF C26 H24 N6 O2

PAGE 1-A



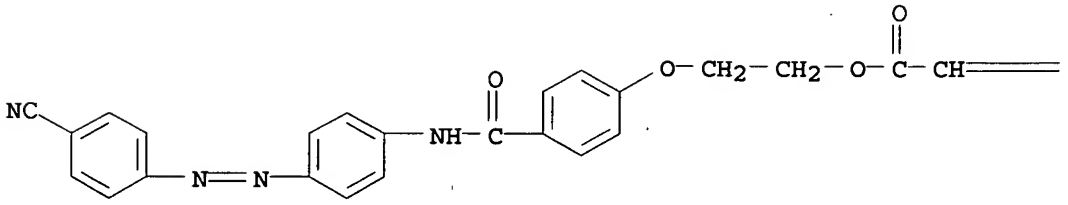
PAGE 1-B

$=CH_2$

CM 2

CRN 346725-16-4
CMF C25 H20 N4 O4

PAGE 1-A



PAGE 1-B

$=CH_2$

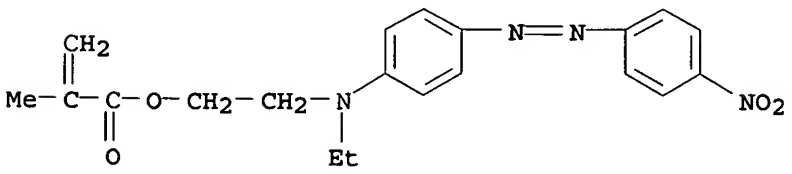
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:715430 HCAPLUS
DN 130:82226
TI Scanning second harmonic microscopy techniques with monomode and near field optical fibers
AU Adameck, M.; Blum, R.; Eich, M.
CS Materialien der Mikroelektronik, Technische Universitat Hamburg-Harburg, Martin-Leuschel-Ring 16, Hamburg, D-21073, Germany

SO Applied Physics Letters (1998), 73(20), 2884-2886
CODEN: APPLAB; ISSN: 0003-6951
PB American Institute of Physics
DT Journal
LA English
AB Extending our scanning second harmonic microscopy (SSHM) technique for the detection of lateral orientational inhomogeneities in high field poled polymer films, we present results with considerably improved lateral resolution by using optical fiber technol. Two exptl. setups for measuring the $\chi(2)$ susceptibility of thin films are introduced. The first setup uses a standard monomode IR-fiber with 10 μm core that carries the coherent fundamental IR wave to the surface of a poled polymer film (illumination mode). The generated doubled frequency wave behind the nonlinear optical sample is detected by a photomultiplier tube. In the second setup a **lens** focuses the fundamental wave into the poled film. The resulting second harmonic wave is coupled into a 2.5 μm single mode fiber. SSHM micrographs of high field poled nonlinear optical polymer films were obtained with lateral resolns. of <3.5 μm. SSHM was also realized with a scanning near field optical microscopy fiber in pick up mode.
CC 37-5 (Plastics Manufacture and Processing)
ST polymethacrylate nonlinear susceptibility scanning microscopy; scanning second harmonic microscopy polymer; optical fiber scanning microscopy polymer
IT Optical fibers
Scanning microscopy
Second-order nonlinear optical susceptibility
(use of optical fibers in scanning second harmonic microscopy for determination
of polymer nonlinear optical properties)
IT **119989-05-8**, Methyl methacrylate-Disperse Red 1 methacrylate copolymer
RL: PRP (Properties)
(use of optical fibers in scanning second harmonic microscopy for determination
of polymer nonlinear optical properties)
IT **119989-05-8**, Methyl methacrylate-Disperse Red 1 methacrylate copolymer
RL: PRP (Properties)
(use of optical fibers in scanning second harmonic microscopy for determination
of polymer nonlinear optical properties)
RN 119989-05-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

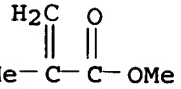
CM 1

CRN 103553-48-6
CMF C20 H22 N4 O4



CM 2

CRN 80-62-6
CMF C5 H8 O2



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:763638 HCAPLUS
DN 123:146693
TI Polymerizable yellow dyes and their use in **ophthalmic lenses**
IN Jinkerson, David L.
PA Alcon Laboratories, Inc., USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9511279	A1	19950427	WO 1994-US11485	19941011
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5470932	A	19951128	US 1993-138663	19931018
	AU 9480147	A1	19950508	AU 1994-80147	19941011
	AU 674262	B2	19961212		
	EP 674684	A1	19951004	EP 1994-931331	19941011
	EP 674684	B1	19990127		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 08503997	T2	19960430	JP 1995-511973	19941011
	AT 176268	E	19990215	AT 1994-931331	19941011
	ES 2127419	T3	19990416	ES 1994-931331	19941011
	CA 2147856	C	19990427	CA 1994-2147856	19941011
	JP 2003119226	A2	20030423	JP 2002-256083	19941011
	US 5528322	A	19960618	US 1995-447334	19950522
	US 5543504	A	19960806	US 1995-445799	19950522
	US 5662707	A	19970902	US 1996-667347	19960621
	JP 09187499	A2	19970722	JP 1996-322885	19961203
	JP 3375841	B2	20030210		
	JP 09187500	A2	19970722	JP 1996-322886	19961203
	JP 3375842	B2	20030210		
	HK 1013092	A1	20000407	HK 1998-113834	19981217
PRAI	US 1993-138663	A	19931018		
	JP 1995-511973	A3	19941011		
	JP 1996-322886	A3	19941011		
	WO 1994-US11485	W	19941011		
	US 1995-445809	B1	19950705		

OS MARPAT 123:146693
AB The polymerizable yellow dyes consist of an otherwise (un)substituted azobenzene nucleus having (1) a C1-6 alkyl substituent with ≥1

(meth)acryloyloxy and/or (meth)acrylamido group bonded to it via an acyclic spacer group consisting of 1-10 atoms selected from C, H, Si, O, N, P, S, Cl, Br, and F or (2) a p-amino substituent with 2 (meth)acryloyloxy and/or (meth)acrylamido groups bonded to it via 1-2 such spacer groups each. The dyes are used to block or lower the intensity of blue light transmitted through **ocular lenses** and other windows.

IC ICM C09B069-10
ICS G02B001-04; C08F020-60; C08F220-60; C08F246-00

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 35, 38, 42, 63

ST polymerizable yellow dye **intraocular lens**; blue blocking **lens**

IT Coating materials
(**ophthalmic lenses** coated with polymers comprising polymerizable yellow azo dyes)

IT Dyes, azo
(polymerizable yellow azo dyes and their use in **ophthalmic lenses**)

IT **Lenses**
(contact, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)

IT **Lenses**
(eyeglass, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)

IT **Lenses**
(**intraocular**, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)

IT **167094-66-8P 167094-67-9P**
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(polymerizable yellow azo dyes and their use in **ophthalmic lenses**)

IT 37140-99-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of polymerizable yellow azo dyes for use in **ophthalmic lenses**)

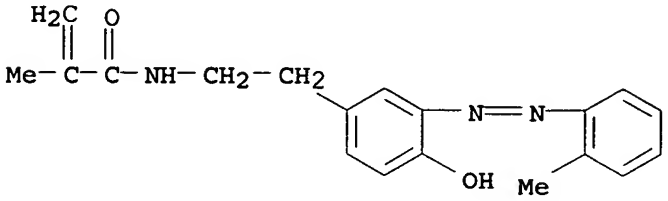
IT 51-67-2, Tyramine 62-53-3, Benzenamine, reactions 95-53-4, o-Toluidine, reactions 120-07-0, Phenyldiethanolamine 760-93-0, Methacrylic anhydride 2452-84-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymerizable yellow azo dyes for use in **ophthalmic lenses**)

IT **167094-68-0P 167094-69-1P**
RL: DEV (Device component use); IMF (Industrial manufacture); **PREP (Preparation)**; USES (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)

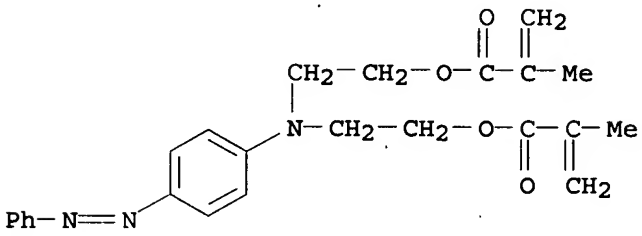
IT **167094-70-4P 167094-71-5P**
RL: DEV (Device component use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)

IT **167094-66-8P 167094-67-9P**
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)
(polymerizable yellow azo dyes and their use in **ophthalmic**

lenses)
RN 167094-66-8 HCAPLUS
CN 2-Propenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl- (9CI) (CA INDEX NAME)



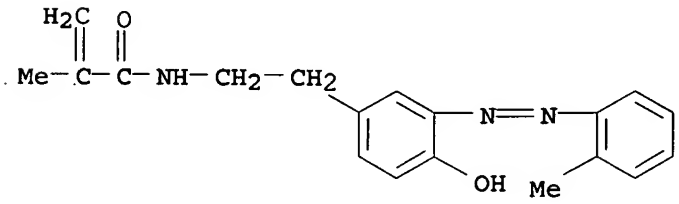
RN 167094-67-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



IT **167094-68-0P 167094-69-1P**
RL: DEV (Device component use); IMF (Industrial manufacture); **PREP (Preparation)**; USES (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)
RN 167094-68-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenylethyl ester, polymer with 1,4-butanediyl di-2-propenoate, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl-2-propenamide and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

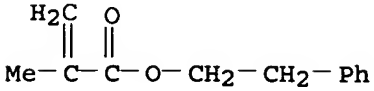
CRN 167094-66-8
CMF C19 H21 N3 O2



CM 2

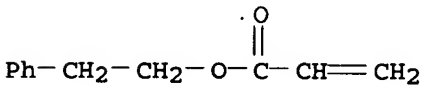
CRN 3683-12-3

CMF C12 H14 O2



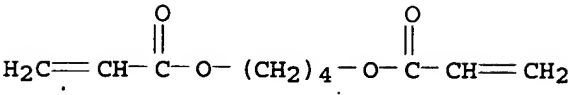
CM 3

CRN 3530-36-7
CMF C11 H12 O2



CM 4

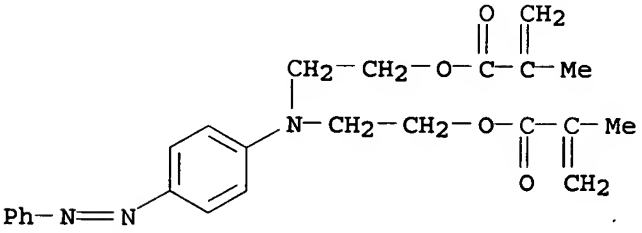
CRN 1070-70-8
CMF C10 H14 O4



RN 167094-69-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester, polymer with 1,4-butanediyl di-2-propenoate, 2-phenylethyl 2-methyl-2-propenoate and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

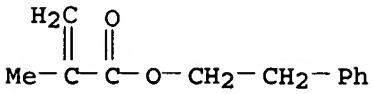
CM 1

CRN 167094-67-9
CMF C24 H27 N3 O4



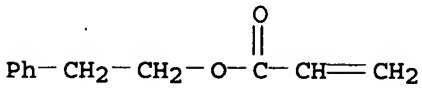
CM 2

CRN 3683-12-3
CMF C12 H14 O2



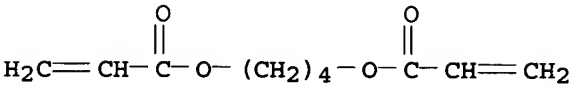
CM 3

CRN 3530-36-7
CMF C11 H12 O2



CM 4

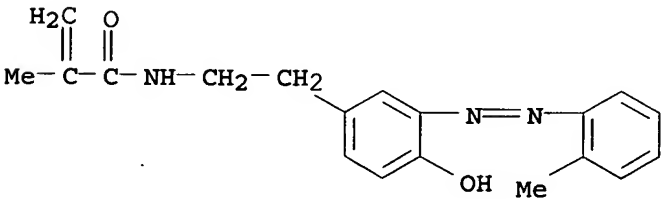
CRN 1070-70-8
CMF C10 H14 O4



IT **167094-70-4P 167094-71-5P**
RL: DEV (Device component use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)
RN 167094-70-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-phenylethyl ester, polymer with 2-(2H-benzotriazol-2-yl)-4-methyl-6-(2-methyl-2-propenyl)phenol, 1,4-butanediyl di-2-propenoate, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl-2-propenamide and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

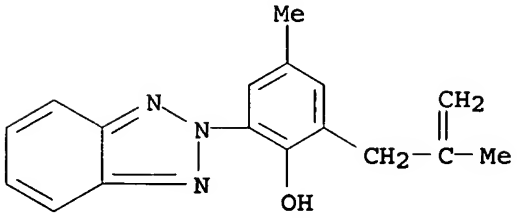
CM 1

CRN 167094-66-8
CMF C19 H21 N3 O2



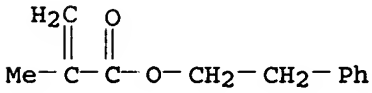
CM 2

CRN 98809-58-6
CMF C17 H17 N3 O



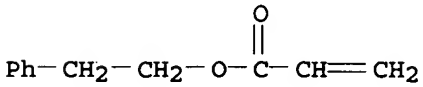
CM 3

CRN 3683-12-3
CMF C12 H14 O2



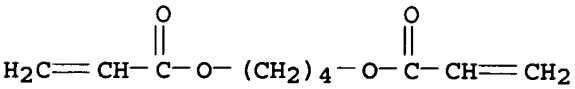
CM 4

CRN 3530-36-7
CMF C11 H12 O2



CM 5

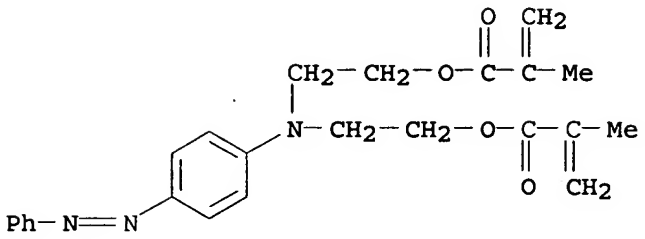
CRN 1070-70-8
CMF C10 H14 O4



RN 167094-71-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester, polymer with 2-(2H-benzotriazol-2-yl)-4-methyl-6-(2-methyl-2-propenyl)phenol, 1,4-butanediyl di-2-propenoate, 2-phenylethyl 2-methyl-2-propenoate and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

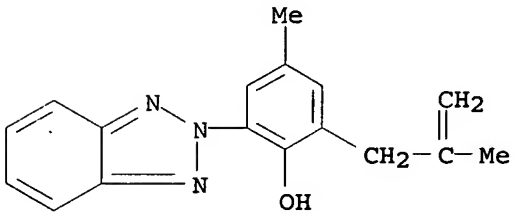
CM 1

CRN 167094-67-9
CMF C24 H27 N3 O4



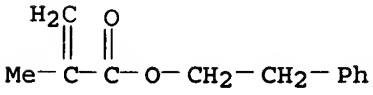
CM 2

CRN 98809-58-6
CMF C17 H17 N3 O



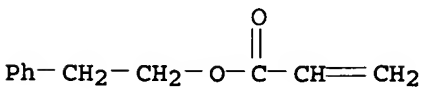
CM 3

CRN 3683-12-3
CMF C12 H14 O2



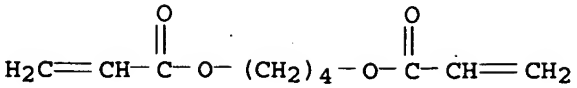
CM 4

CRN 3530-36-7
CMF C11 H12 O2



CM 5

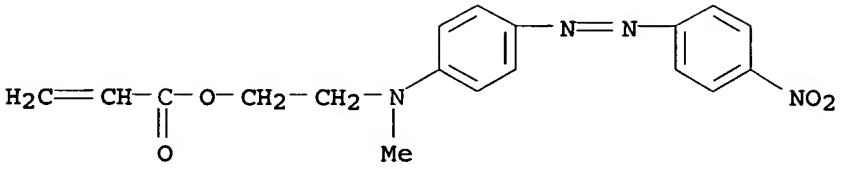
CRN 1070-70-8
CMF C10 H14 O4



L34 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:643460 HCAPLUS
DN 115:243460
TI Polymeric electrooptic phase modulators formed by self-alignment over channels etched into indium phosphide
AU Hill, J. R.; Pantelis, P.
CS Br. Telecom Res. Lab., Martlesham Heath/Ipswich, IP5 7RE, UK
SO Journal of Applied Physics (1991), 70(8), 4649-51
CODEN: JAPIAU; ISSN: 0021-8979
DT Journal
LA English
AB Waveguides which are single mode at a wavelength of 1.32 μm, and which have linear electrooptic properties, were fabricated by spin coating polymers onto etched InP. The side-chain polymer, which comprises the core of the waveguide, develops linear electrooptic properties following an elec. field alignment process. A phase modulator was fabricated by this method and has a switching voltage of 30 V, for a π phase change. The total insertion loss of the device was measured between single-mode **lensed** fibers to the 9.4 dB. The electrooptic coefficient of the core polymer was calculated from the switching voltage using the geometry of the device and was (6 to 11) + 10-12 m/V.
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 36
ST polymer electrooptical phase modulator indium phosphide
IT Optical instruments
(electro-, modulators, phase, from polymer waveguide over channels etched in indium phosphide)
IT **136326-92-6**
RL: PRP (Properties)
(electrooptical phase modulator based on)
IT 22398-80-7, Indium phosphide, uses and miscellaneous
RL: PRP (Properties)
(electrooptical phase modulator by polymer spin coated onto etched surface of)
IT **136326-92-6**
RL: PRP (Properties)
(electrooptical phase modulator based on)
RN 136326-92-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-[methyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl 2-propenoate (9CI) (CA INDEX NAME)

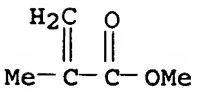
CM 1

CRN 95166-98-6
CMF C18 H18 N4 O4



CM 2

CRN 80-62-6
CMF C5 H8 O2



L34 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1976:35357 HCAPLUS
DN 84:35357
TI Contact **lenses** formed from methacrylic esters copolymerized with reactive dyes
PA Tanabe Seiyaku Co., Ltd., Japan
SO Brit., 6 pp.
CODEN: BRXXAA
DT Patent
LA English
FAN.CNT 1

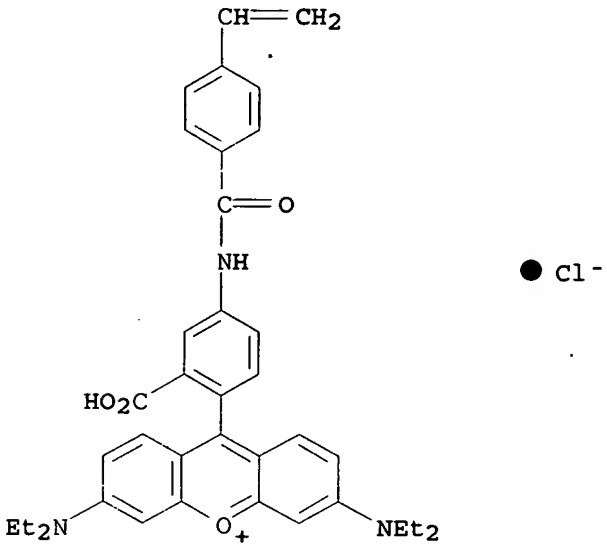
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1400892	A	19750723	GB 1973-21711	19730507
	JP 49006939	A2	19740122	JP 1972-45236	19720508
	DE 2323199	A1	19731213	DE 1973-2323199	19730508
PRAI	JP 1972-45236	A	19720508		

AB Colored contact **lenses** were prepared by copolymg. methacrylate esters with dyes. E.g., a yellow **lens** having absorption maximum at 470 mμ consisted of ethylene glycol monomethacrylate-diglycol monomethacrylate-diglycol dimethylacrylate-1-(o-tolylazo)-2-naphthol acrylate copolymer.
IC C08F
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37
ST contact **lens** colored
IT **Lenses**
(contact, colored, methacrylate-dye copolymers)
IT 57619-71-3 57619-73-5 57619-75-7 57619-77-9 57619-79-1
57619-81-5 57619-83-7 57619-84-8 57619-85-9 57619-87-1
57619-89-3
RL: BIOL (Biological study)
(colored contact **lens** material)
IT **57619-89-3**
RL: BIOL (Biological study)
(colored contact **lens** material)
RN 57619-89-3 HCAPLUS
CN Xanthylium, 9-[2-carboxy-4-[(4-ethenylbenzoyl)amino]phenyl]-3,6-

bis(diethylamino)-, chloride, polymer with 2-(2-hydroxyethoxy)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methyl-N-[1-[(2-methylphenyl)azo]-2-naphthalenyl]-2-propenamide and oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

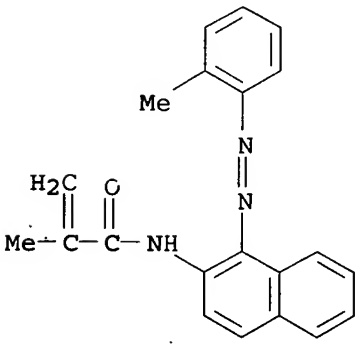
CM 1

CRN 57619-88-2
CMF C37 H38 N3 O4 . Cl



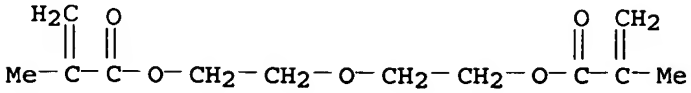
CM 2

CRN 14473-46-2
CMF C21 H19 N3 O



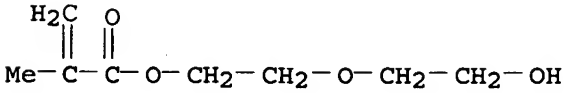
CM 3

CRN 2358-84-1
CMF C12 H18 O5



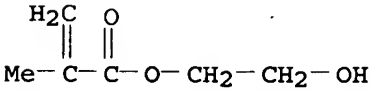
CM 4

CRN 2351-43-1
CMF C8 H14 O4



CM 5

CRN 868-77-9
CMF C6 H10 O3



=>